

WHAT IS CLAIMED IS:

1. A process for treating a naturally occurring body of fluid, said process comprising:

providing a fine porous device;

positioning said fine porous device in said body of fluid;

passing a portion of said body of fluid through said fine porous device; and

transferring said portion of said body of fluid to a location away from a remainder of said body of fluid.

2. The process of claim 1 wherein said body of fluid includes at least one undesired component, said process further comprising:

blocking at least a portion of said at least one undesired component with said fine porous device such that said portion of said at least one undesired component is left in said remainder of said body of fluid.

3. The process of claim 2 wherein said at least one undesired component is selected from the group consisting of sediment, solids suspended in said body of fluid, pathogens, contaminants, germs, and microorganisms.

4. The process of claim 3 wherein said pathogens are selected from the group consisting of bacteria, protozoa, amoeba, and viruses.

5. The process of claim 3 wherein said microorganisms are selected from the group consisting of giardia cysts, cryptosporidium, pseudomonas, E-coli, legionella, bacteria, coliform, protozoan oocysts, algae, and viruses.

6. The process of claim 3 wherein said solids suspended in said body of fluid are selected from the group consisting of metals, inorganic solids, and organic compounds.

7. The process of claim 1 wherein said fluid is selected from the group consisting of water and air.

8. The process of claim 1 further comprising:

    providing a screen;

    positioning said screen in said body of fluid such that said portion of said body of fluid passes first through said screen and then through said fine porous device.

9. The process of claim 1 further comprising:

    providing a pump;

    positioning said pump in said body of fluid, said pump adapted to induce a flow of said portion of said body of fluid; and

    inducing said portion of said body of fluid to pass through said fine porous device.

10. The process of claim 1 further comprising:

    providing a pump; and

    placing said pump in fluid communication with said portion of said body of fluid;

    wherein said pump is used to transfer said portion of said body of fluid to said location away from said remainder of said body of fluid.

11. The process of claim 1 further comprising:

    providing a structural support; and

    securing said fine porous device to said structural support;

wherein said fine porous device and said structural support are adapted to be positioned in said body of fluid.

12. The process of claim 11 wherein said structural support is a housing.

13. The process of claim 1 further comprising:

providing a pump;

placing said pump in fluid communication with said fine porous device and another source of a fluid ; and

pumping said fluid from said another source into said body of fluid to clean said fine porous device.

14. The process of claim 1 wherein said fine porous device is selected from the group consisting of ultrafilter membranes, microporous membranes, porous membranes, microscreens, nanofilters, reverse osmosis membranes, and particle filters.

15. A process for treating a naturally occurring body of water, said body of water including at least one undesired component, said process comprising:

providing a fine porous device, a structural support, a screen, and a first pump;

securing said fine porous device to said structural support;

positioning said fine porous device, said structural support, and said screen in said body of water;

passing a portion of said body of water through said screen and then through said fine porous device;

blocking at least a portion of said at least one undesired component with said fine porous device such that said portion of said at least one undesired component is left in a remainder of said body of water;

placing said first pump in fluid communication with said portion of said body of water, said first pump adapted to transfer said portion of said body of water to a location away from said remainder of said body of water; and

transferring said portion of said body of water to said location away from said remainder of said body of water.

16. The process of claim 15 further comprising:

providing a second pump;

positioning said second pump in said body of water, said second pump adapted to induce a flow of said portion of said body of water; and

cleaning said fine porous device by inducing said portion of said body of fluid to pass across and scour said fine porous device.

17. The process of claim 15 further comprising:

placing said first pump in fluid communication with said fine porous device and another source of a fluid ; and

pumping said fluid from said another source into said body of water to clean said fine porous device.

18. A fluid treatment system fluid comprising:

a naturally occurring body of fluid including at least one undesired component;

a screen positioned in said body of fluid;

a fine porous device positioned in said body of fluid such that a portion of said body of fluid is adapted to pass through said screen and then through said fine porous device, said fine porous device adapted to block at least a portion of said at least one undesired component when said portion of said body of fluid passes through said fine porous device;

a conduit having a first end portion and a second end portion, said first end portion positioned in said body of fluid such that it is adapted to be in fluid communication with said portion of said body of fluid that has passed through said fine porous device, said second end portion positioned outside of said body of fluid; and

a first pump located outside of said body of fluid and connected to said second end portion of said conduit, said first pump adapted to transfer said portion of said body of fluid to said second end portion of said conduit.

19. The fluid treatment system of claim 18 further comprising:

a second pump positioned in said body of fluid, said pump adapted to induce a flow of said portion of said body of fluid such that said portion of said body of fluid passes across said fine porous device.

20. The fluid treatment system of claim 18 further comprising:

a structural support positioned in said body of fluid and secured to said fine porous device.